



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,883	10/19/2001	John Haughey	13791	7341

293 7590 09/05/2006

Ralph A. Dowell of DOWELL & DOWELL P.C.
2111 Eisenhower Ave
Suite 406
Alexandria, VA 22314

EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT	PAPER NUMBER
----------	--------------

2195

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,883

Applicant(s)

HAUGHEY, JOHN

Examiner

Lewis A. Bullock, Jr.

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,11,13-22 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41 is/are allowed.
- 6) ☒ Claim(s) 6,11,13-20 and 22 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by PISKIEL (U.S. Patent 5,916,307).

As to claim 22, PISKIEL teaches a method of executing a set of incomplete tasks (sending messages) comprising: removing an existing incomplete task from the set when a newer version of the existing incomplete task is added to the set (via overwriting an existing stored message for transfer when another instance of the message is added to the queue) (col. 11, lines 11-30); and executing the remainder of the set of incomplete tasks (via sending the messages in the queue) (col. 11, lines 31-47). It is inherent to the teachings of PISKIEL that since the previous message is in a position of the queue that has not been executed that when the message is overwritten it cannot be executed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2195

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 11 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Lecture 2, Algorithms for a Single Machine" by RABANI.

As to claim 6, RABANI teaches a method of executing a set of at least one incomplete task, comprising: selecting an incomplete task from the set on the basis of an expected duration until completion for that task (via the Shortest Remaining Processing Time Rule which schedules jobs based on the remaining processing time); and advancing execution of the selected task until the earlier of (i) completion of the selected task or (ii) a condition (via jobs are executed until they are completed or preempted) (see page 1). However, RABANI does not explicitly detail the use of an execution timer having an expiry condition such that it is reset and used in order to suspend the execution of a selected task. Official Notice is taken in that it is well known in the art that preemption of a task uses a counter such that after a predetermined period has expired, if the currently executed task is not completed it is preempted to allow other task to execute and prevent excessive delays to other task for execution. RABANI teaches preempting tasks when one executes a scheduling scheme based on the shortest remaining time which selects the task with the shortest remaining processing time for execution, therefore it would be obvious to one of ordinary skill in the art that this preemption is based on the well known disclosure of a timer based preemption such that further task are selected based on their shortest remaining processing time to prevent tasks/jobs from excessively delaying. Applicant is referred to

Art Unit: 2195

all the previously cited references in showing that a timer based preemption is well known in the art.

As to claim 11, RABANI teaches selecting task to execute based on the Shortest Remaining Time (pg. 1). It would be obvious to one of ordinary skill in the art that initially one task is executed whereas the other task are have not been invoked and therefore have not been previously suspended.

As to claim 13, RABANI teaches selecting task to execute based on the Shortest Remaining Time (pg. 1). It would be obvious to one of ordinary skill in the art that since it is well known in the art that task that do not complete within a time period are suspended and RABANI teaches a preemption scheme that selects tasks based on the shortest remaining time that suspended task would eventually be reselected for execution.

As to claims 14-20, RABANI teaches a method of executing a set of at least one incomplete task, comprising: selecting an incomplete task from the set on the basis of an expected duration until completion for that task (via the Shortest Remaining Processing Time Rule which schedules jobs based on the remaining processing time); and advancing execution of the selected task until the earlier of (i) completion of the selected task or (ii) a condition (via jobs are executed until they are completed or preempted) (see page 1). However, RABANI does not explicitly detail the use of an

Art Unit: 2195

execution timer having an expiry condition such that it is reset and used in order to suspend the execution of a selected task. Official Notice is taken in that it is well known in the art that preemption of a task uses a counter such that after a predetermined period has expired, if the currently executed task is not completed it is preempted to allow other task to execute and prevent excessive delays to other task for execution. It is also well known in the art that when a task is preempted its state as well as the state of the system it executes on is saved and later restored when the task is invoked again.

Allowable Subject Matter

1. Claim 41 is allowed.
2. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

3. Applicant's arguments with respect to claims 6, 11, 13-20, and 22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2195

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2195

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 1, 2006


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER